PROPOSED STORMWATER MANAGEMENT REGULATIONS (To date):

4VAC 50-60-66 Water Quantity

In order to protect state waters from the potential harms of unmanaged quantities of stormwater runoff, the following technical criteria and statewide standards for stormwater management shall apply to land disturbing activities:

A. Properties and state waters receiving stormwater runoff from any land-disturbing activity shall be protected from sediment deposition, erosion and damage due to changes in runoff rate of flow and hydrologic characteristics, including but not limited to, changes in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff in accordance with the minimum water quantity standards set out in this section.

B. Pursuant to §10.1-603.4 subsection 2, a local program shall require that land disturbing activities protect properties and waterways downstream from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater run-off for the [one-year] storm of 24-hour duration in accordance with the following standards and criteria:

Deleted: 7

1. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.

2. Adequacy of all channels and pipes shall be verified in the following manner:

a. The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or

b.(1) Natural channels shall be analyzed by the use of a [two-year] storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks.

(2) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and

(3) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.

3. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:

a. Improve the channels using natural stream channel design to a condition where a ten-year storm will not overtop the banks and a [one-year] storm will not cause erosion to channel the bed or banks; or

b.(1) If the site is in good forested condition, maintain post-development runoff rate of flow and runoff characteristics that replicate as nearly as practicable the existing predevelopment runoff characteristics and site hydrology; or

(2) If the site is not in good forested condition, reduce the allowable peak flow rate resulting from the 1-year, 24-hour storm to a level that is less than or equal to the peak flow rate from the site assuming that it was in good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the

runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition.

4. Flooding and channel erosion impacts to receiving streams due to land-disturbing activities shall be calculated for each point of discharge from the land disturbance and such calculations shall include any runoff from the balance of the watershed which also contributes to that point of discharge. Flooding and channel erosion impacts shall be evaluated taking the entire upstream watershed into account, including the modifications from the planned land disturbance. Good engineering practices and calculations shall be used to demonstrate post development runoff characteristics and site hydrology, and flooding and channel erosion impacts.

Deleted: ¶
1. Maintain post-development runoff rate of flow and runoff characteristics that replicate, as nearly as practicable, the existing predevelopment runoff characteristics and site hydrology.¶
2. If stream channel erosion or localized flooding exists at the site prior to the proposed land disturbing activity, the project shall improve to the extent practicable upon the contributing share of the existing predevelopment runoff characteristics and site hydrology.¶
C. For the purposes of determining compliance with subsection B, a local program shall require the following:¶
1. Pre-development runoff characteristics and site hydrology shall be verified by physical surveys, geotechnical investigations, and calculations that are consistent with good engineering practices that are acceptable to the local program authority.¶

Deleted: 2

Deleted: 3. For purposes of computing predevelopment runoff, all pervious lands in the site shall be assumed prior to development to be in good condition (if the lands are pastures, lawns, or parks), with good cover (if the lands are woods), or with conservation treatment (if the lands are cultivated); regardless of conditions existing at the time of computation. Predevelopment runoff calculations utilizing other land cover values may be utilized where stream channel erosion or localized flooding at the site does not exist provided that it is demonstrated to and approved by the local program authority that actual site conditions warrant such considerations.¶
D. Notwithstanding the requirements of subsection C, any land disturbing activity shall be deemed to have satisfied the requirements of subsection B if the practices implemented on the site are designed to:¶
1. Detain the water quality volume and to release it over 48 hours;¶
2. Detain and release over a 24-hour period the expected rainfall resulting from the one year, 24 hour storm; and¶
3. Reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming that it was in good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition.¶
Such land disturbing activity shall further be exempt from any flow rate capacity and velocity requirements for natural or manmade channels as defined in any other section of this regulation.¶